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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,341	11/25/2003	Simon Korowitz	102314-0157	6549
21125	7590	03/25/2005	EXAMINER	
NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			PHAN, RAYMOND NGAN	
		ART UNIT		PAPER NUMBER
		2111		

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/722,341	KOROWITZ ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Raymond Phan	2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-35 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08162004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

### **Part III DETAILED ACTION**

#### ***Notice to Applicant(s)***

1. This application has been examined. Claims 1-35 are pending.
2. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2111.

#### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The following is a quotation of the first paragraph of 35 U.S.C. § 112:  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to teach wherein the computing device downloads programs and data to the control subsystem (claim 3); a computing device is coupled to the first control device via a network, the computing device being configured to download programs to the first control device (claims 11, 21); the workstation being configured to download programs to the first control device (claim 16); a first control device coupled to a network (claim 27)

The disclosure is non-enabling for claims 3, 11, 16, 21, 27 because the limitations recited in the claims 3, 11, 16, 21, 27 were merely hinted as possible

modifications to the claimed invention and no circuit diagrams or suggestion were provided to make modifications as hinted. Therefore, undue experimentation is required and the disclosure does not enable a person skilled in the art to make and use the claimed invention.

***Claim Rejections - 35 USC § 112***

5. Claims 3, 11-35 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Broedner et al. (US No 5,812,796).

In regard to claim 1, Broedner et al. disclose a field controller for use in a process control system including an area controller 100 and at least one field controller 410, 420, the field controller managing at least one controlled device in

an industrial process operation, the field controller comprising a processor module segment 416 and at least one expansion module segment 425 (see figure 4, col. 13, line 55 through col 14, line 3); said processor module segment including a processor module 416 and at least one local interface module for interfacing 4150 to a control device 415B (see figure 4), said processor module and said local interface module being connected by a processor module bus segment, the processor module bus segment further being connected to an upstream off-module connector (see figure 4, col. 13, line 55 through col. 14, line 45); each expansion module segment including at least one expansion interface module, a downstream off-module connector 415C and an upstream off-module connector 415A, interconnected by an expansion module bus segment, the downstream off-module connector being adapted to mate with the upstream off-module connector of the processor module segment and of an expansion module segment, thereby to facilitate the interconnection of the processor module segment and a sequence of expansion module segments by establishing a unitary multi-drop bus comprising the processor module bus segment and expansion module bus segments in the sequence, the processor module controlling each controlled device through the respective local interface module or expansion interface module connected thereto, said processor module segment and each said expansion module segment being mounted in a housing segment configured to form a unitary housing (see figure 4, col. 13, line 55 through col. 14, line 65).

8. Claims 2, 6-7, 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dorfe et al. (US No 5,204,669).

In regard to claim 2, Dorfe et al. disclose a control system comprising a computer device 12 providing a first control function within the control system

(see figure 1, col. 5, line 30-60); a plurality of field devices 16, at least one of the field device providing a second control function within the control system (see figure 1, col. 5, line 30 through col. 6, line 14); a control subsystem communicatively coupled to the computer device comprising a bus (i.e. serial bus), a plurality of modules that are coupled to the bus and that each comprise a housing and at least the first module comprising a controller, at least the second module interfacing one or more of the field devices, and at least a third module interfacing to the field device that provide the second control function (see figure 1, col. 5, line 30 through col. 6, line 53).

In regard to claims 6, 10, Dorfe et al. disclose wherein the bus is a multidrop bus (see col. 5, lines 30-60).

In regard to claim 7, Dorfe et al. disclose a control system comprising a computer device 12 providing a first control function within the control system (see figure 1, col. 5, line 30-60); a plurality of field devices 16, at least one of the field device providing a second control function within the control system (see figure 1, col. 5, line 30 through col. 6, line 14); a control subsystem communicatively coupled to the computer device comprising a bus (i.e. serial bus), a plurality of modules that are coupled to the bus and that each comprise a housing and at least the first module comprising a controller, at least the second module interfacing one or more of the field devices, and at least a third module interfacing to the field device that provide the second control function (see figure 1, col. 5, line 30 through col. 6, line 53); the first control device being configured to control the second control device (see figure 1, col. 5, line 30 through col. 6, line 53).

*Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4-5, 8-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dorfe et al. (US No 5,204,669) in view of McNutt (US No. 5,802,389).

In regard to claims 4, 8, Dorfe et al. disclose the claimed subject matter as discussed above except the teaching of a support member that is adapted to mount to any of a wall and a DIN rail, at least one module being mechanically coupled to the support member. However McNutt discloses expansion module including a support member that is adapted to mount to any of a wall and a DIN rail, at least one module being mechanically coupled to the support member (see figure 1, col. 6, lines 30-42). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of McNutt within the system of Dorfe et al. because it would provide user an easy-changeable communication ports.

In regard to claims 5, 9, even though the teachings of Dorfe et al. or McNutt do not specifically disclose wherein the field device is a sensor, however one skilled in the art would have understood that they can choose to have a sensor to provide interchangeable functions for expansion system.

#### *Allowable Subject Matter*

11. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1<sup>st</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Claims 11-35 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1<sup>st</sup> paragraph, set forth in this Office action.

13. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claims 3, 11, 16, 21, 27 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior arts which teach wherein the computing device downloads programs and data to the control subsystem (claim 3); a computing device is coupled to the first control device via a network, the computing device being configured to download programs to the first control device (claims 11, 21); the workstation being configured to download programs to the first control device (claim 16); a first control device coupled to a network and a second control device that is coupled to the first control device via the network (claim 27).

The remaining claims, not specifically mentioned, are allowed for the same rationale as set forth the parent claims by dependency.

### *Conclusion*

14. All claims are rejected.

15. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

**Nishikawa et al. (US No. 5,119,496)** disclose a method and apparatus for interrupt processing in a computer system having peripheral units connected in a daisy chain.

**Johansson (US No. 5,455,911)** discloses a communications protocol for use in transferring data over a serial bus.

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**Korowitz et al. (US No. 6,671,763) disclose a distributed control system including a compact easily-extensible and serviceable field controller.**

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

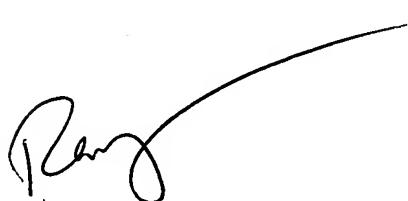
If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



***Raymond Phan***  
3/20/05